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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/767,884	01/24/2001	Robert Williams	F0685	2559
45114	7590	09/12/2005	EXAMINER	
HARRITY & SNYDER, LLP 11240 WAPLES MILL ROAD SUITE 300 FAIRFAX, VA 22030			JEAN, FRANTZ B	
			ART UNIT	PAPER NUMBER
			2151	

DATE MAILED: 09/12/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/767,884

Applicant(s)

WILLIAMS, ROBERT

Examiner

Frantz B. Jean

Art Unit

2151

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 April 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>1/28,7/13/05</u> . | 6) <input type="checkbox"/> Other: _____ |

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This office action is in response to applicant's arguments filed 04/29/05. Claims 1-20 are still pending in this application.

Terminal Disclaimer

The terminal disclaimer filed on 4/29/05 disclaiming the terminal portion of any patent granted on this application which would extend beyond the expiration date of application with serial number 09/814,818 has been reviewed and is accepted. The terminal disclaimer has been recorded.

Information Disclosure Statement

The information disclosure statement (IDS) submitted on 1/28/05 and 7/13/05 was filed after the mailing date of the non-final office action on 1/31/05. The submission is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

The double patenting rejection filed on 1/31/05 has been withdrawn.

Response to Arguments

Applicant's arguments with respect to claims 1-20 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

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Claims 1-4 are rejected under 35 U.S.C. 102(e) as being anticipated by Fukuzawa et al. (US Patent No. 5,247,620).

As per claim 1, Fukuzawa teaches a network device (bridge 1) connected to a host (management 49), located externally with respect to the network device (fig 1), the network device comprising comprising: a plurality of receive elements (39-40) configured to receive data from network stations (items 42-48; col. 6 lines 25-46); a plurality of transmit elements (39,40) configured to transmit data from the network device (col. 6 lines 25-46); an address table (address information RAM 101) configured to store a plurality of entries, (Fig 4; Fig 5, col 3, lines 11-12); an address register accessible by the host and configured to store an address of the entries in the address table (col 7, lines 51-54; fig 3, fig 5); an address table access port accessible by the host and configured to store contents of one of the entries in the address table (col. 7, lines 51-54; fig 3; fig 5); table access logic (hash address generator 103, selector 104, control circuit 102) configured to receive a command from the host to read one of the entries in the address table, locate the one entry in the address table in response to the command, store an address of the one entry in the address register for access by the host, and store contents of the one entry in the address table access port for access by the host (col 8, lines 16-32).

As per claims 2 and 4, Fukuzawa teaches receiving command from the host to read a next one of the entries in the address table, locate the next entry in the address table store an address of the next entry in the address register for access by the host, and store contents of the next entry in the address table access port for access by the host (col. 8 lines 4 et seq).

As per claim 3, wherein the table access logic is further configured to read an address from the address register to identify a currently addresses one of the entries, read a pointer from the currently addressed entry, and locate the next entry using the pointer (col 8, lines 4-15)

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action: The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Fukuzawa (US Patent No. 5,247,620) and further in view of Flavin et al. (U.S. Patent 6,108,308).

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As per claim 5, Fukuzawa does not explicitly disclose the entries include bin entries and heap entries, at least one of the bin entries including a pointer to one of the heap entries, at least one of the heap entries including a pointer to another one of the heap entries. However, Flavin disclose a dynamic routing network device comprising of bin entries and heap entries, at least one of the bin entries including a pointer to one of the heap entries, at least one of the heap entries including a pointer to another one of the heap entries (FIG. 99 column 12, line 60 to column 14, line 3). An ordinary skill in the art at the time the invention was made would have been motivated to look for a way to improve routing of information from one of more sources to one or more destinations (see Flavin: column 3, lines 13-19) as the size of networks continue to grow. Accordingly, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have combined the inventions of Fukuzawa and Flavin to provide a network device utilizing pointers and heaps for more efficient dynamic routing.

Claims 6-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over (US Patent No. 5,247,620) to Fukuzawa in view of Lawler et al. (US Patent 5,978951).

As per claims 6 and 8-20, Fukuzawa disclose a network device comprising an input data holding register, locate entry (col 7 line 60 to col. 8 line 15), address table to store address entries (FIG. 5; FIG. 7), table access logic (col. 8 line 1 et seq), applying hashing function to data in the register (col 8 lines 33-58) and functionalities associated to store, search the entries. However, Fukuzawa did not expressly disclose using virtual local area network (VLAN) identifier within the entries or the function of overwriting/modifying/deleting entries. Lawler taught a network device for managing cache addresses utilizing an Address Cache ASIC with various functionalities to increase efficiency. However, Lawler disclose receiving a modify entry command, locate one of the entries in the address table to modify using the data from the register, and overwrite the located entry with the data from the register (column 12, lines 9-1 92. An ordinary artisan at the same time the invention was made would have been motivated to look for a way to speed up address processing in a network environment (column 2, lines 19-43, Fukuzawa), (column 2, lines 43-462 Lawler). The VLAN identifier offers greater network management flexibility and the function overwrite enables a more efficient update scheme in contrast to Fukuzawa's system whereby one of ordinary skill in the art would have to issue a delete followed by a store command in order to achieve the same result. Accordingly, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have combined the inventions of Fukuzawa and Lawler to provide a more efficient network-switching device utilizing VLAN and the functionality of overwrite.


As per claim 7, Fukuzawa teaches wherein the table access logic is further configured to receive an insert table entry command from the host, find a location in the address table to create a new entry in response to the insert table entry command, and store the data from the input data holding register at the location in the address table. (col 8, lines 16-32).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Frantz B. Jean whose telephone number is 571-272-3937. The examiner can normally be reached on 8:30-6:00 M-f.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Zarni Maung can be reached on 571 272 3939. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Frantz Jean



FRANTZ B. JEAN
PRIMARY EXAMINER